

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended) A telecommunication network, having a downward data rate, from the network to users greater than an upward data rate, from the users to the network, the telecommunication network comprising multiplexers for establishing connections, constituting virtual channels, between users and the network, the virtual channels being grouped into virtual paths, wherein, in each multiplexer close to the user, a bandwidth allocated to each downward virtual path is variable under the control of a call control means, provided upstream in a switching node, and wherein upward virtual paths have a fixed bandwidth.

2. (currently amended) A network according to claim 1, wherein the call control means is provided with a memory containing information representing a maximum bandwidth allocated downwardly to each user and representing a bandwidth allocated downwardly to one or more interfaces, between the users' multiplexer and the switching node, the call control means using information to limit the bandwidth allocated to each user to its authorized maximum, and to limit a total bandwidth allocated to the downward virtual paths to a value not greater than the bandwidth of the one or more interfaces.

3. (previously presented) A network according to claim 1 or 2, wherein, in a downward direction, each virtual channel is assigned a quality of service.

4. (previously presented) A network according to claim 3, wherein the multiplexer closest to the user has, for each virtual channel of the downward direction, a buffer memory for ATM cells of a given priority.

5-7. (canceled).

8. (previously presented) A method for controlling a telecommunication network, in which connections are realized by virtual channels grouped into virtual paths, wherein a bandwidth of downward virtual paths are controllable dynamically from an upstream controller, and a bandwidth of each upward virtual path is fixed.

9. (previously presented) A method according to claim 8, wherein each downward virtual channel is assigned a respective quality of service.

10. (previously presented) An ATM network comprising:

a plurality of multiplexers for establishing connections between a plurality of users and the ATM network, wherein the multiplexers constitute virtual channels; and

a call control circuit provided upstream of the ATM network in a switching node,

wherein:

a downward data rate, from the ATM network to the users, is greater than an upward data rate, from the users to the network,

the virtual channels are grouped into virtual paths,

a bandwidth allocated to a downward virtual path from the ATM network to one of the plurality of users, is variably controlled by the call control circuit, and

an upward virtual path, from one of the plurality of users to the ATM network, has a fixed bandwidth.

11. (previously presented) An ATM network according to claim 10, wherein:

the call control circuit is provided with a memory containing information representing a maximum bandwidth allocated downwardly to each user and representing a bandwidth allocated downwardly to an interface that is between the users' multiplexer and the switching node, and

the call control circuit utilizes the information to limit a bandwidth of the user to an authorized maximum bandwidth allocated to each user, and to limit a total bandwidth allocated to the downward virtual paths to a value which is not greater than the bandwidth of the interface.

12. (previously presented) A method for controlling a telecommunication network, in which connections are realized by virtual channels grouped into virtual paths, comprising:

dynamically controlling a bandwidth of downward virtual paths by a controller located upstream,

wherein a bandwidth of each upward virtual path is fixed.